

IN THE CLAIMS:

Please cancel claims 2-20 without prejudice or disclaimer of the subject matter thereof.

1. (original) Manufacturing method for permanent magnets of the ferrite type comprising a magnetoplumbite phase of formula $M_{1-x}R_xFe_{12-y}T_yO_{19}$ in which M = Ba, Sr, Ca or Pb, R = Bi or other elements of the rare earths family, T = Mn, Co, Ni, Zn, with x and y comprised between 0.05 and 0.5 in which:

a1) one forms in a mixing means, typically a mixer (3) operating by batch, a pulverulent mixture MP of raw materials related to the elements M, R, Fe and T, typically under the form of oxide, carbonate or hydroxide, comprising water in a predetermined quantity, typically necessary for the formation of granules in the subsequent stage,

a2) next one transforms, typically in a granulator (4), said mixture into green granules A, with a possible addition of extra water,

b) said green granules are calcinated in a calcination furnace (5) to form a clinker B, with a magnetoplumbite phase base of formula $M_{1-x}R_xFe_{12-y}T_yO_{19}$,

c) one carries out a wet grinding said clinker, typically in a dispersion apparatus (6) in aqueous medium, to obtain a homogeneous dispersion C of fine de-agglomerated particles of average particle size less than 1.2 μm ,

d) one concentrates and compresses said particles under an orienting magnetic field to form a green compact D, anisotropic, able to be manipulated and of predetermined shape,

e) one sinters said anisotropic green compact D to obtain a sintered element E,

f) one possibly dimensions the final size of said

sintered element E, typically by machining, a method characterised in that:

1) at stage a1) of the method, one forms said mixture MP, by introducing into said mixing means (3), a dry mixture MS of powders corresponding to said raw materials relative to the elements M and Fe, typically formed in a dry mixer (1), and a homogeneous fluid dispersion DF of said raw materials relative to the elements R and T typically in said pre-determined quantity of water, formed typically in a dispersion apparatus (2); and

2) at stage b) of the method, said green granules A are calcinated at a chosen temperature and for a chosen length of time, in such a way as to obtain, at the exit from the calcination furnace (5) at the end of stage b), a clinker B which is both homogeneous in chemical composition and size, and of low apparent density, comprised between 2.5 and 3.5 and which can be ground easily during stage c).

Claims 2-20 (canceled).

21. (currently amended) Permanent ferrite magnets comprising a magnetoplumbite phase of formula $M_{1-x}R_xFe_{12-y}T_yO_{19}$ in which M = Ba, Sr, Ca or Pb, R = Bi or other elements of the rare earths family, T = Mn, Co, Ni, Zn, with x and y comprised between 0.05 and 0.5, obtained by the a method comprising the steps of: according to claim 1

a1) forming in a mixing means, a pulverulent mixture MP of raw materials related to the elements M, R, Fe and T, comprising water in a predetermined quantity,

a2) transforming said mixture into green granules A, with an optional addition of extra water,

b) calcining said green granules in a calcination furnace (5) to form a clinker B, with a magnetoplumbite phase base of formula $M_{1-x}R_xFe_{12-y}T_yO_{19}$.

c) wet grinding said clinker to obtain a homogeneous dispersion C of fine de-agglomerated particles of average particle size less than 1.2 um,

d) concentrating and compressing said particles under an orienting magnetic field to form a green compact D, anisotropic, able to be manipulated and of predetermined shape,

e) sintering said anisotropic green compact D to obtain a sintered element E, and

f) optionally dimensioning the final size of said sintered element E, wherein:

1) at stage a1) of the method, forming said mixture MP, by introducing into said mixing means (3), a dry mixture MS of powders corresponding to said raw materials relative to the elements M and Fe, and a homogeneous fluid dispersion DF of said raw materials relative to the elements R and T; and

2) at stage b) of the method, calcining said green granules A at a chosen temperature and for a chosen length of time, in such a way as to obtain, at the exit from the calcination furnace (5) at the end of stage b), a clinker B which is both homogeneous in chemical composition and size, and of low apparent density, comprised between 2.5 and 3.5 and which can be ground easily during stage c).

22. (original) Permanent magnets according to claim 21, with a field of anisotropy at least equal to 1711 kA/m.

23. (original) Permanent magnets according to claim 22, with a field of anisotropy at least equal to 1751 kA/m.

24. (original) Permanent magnets according to claim 23, with a field of anisotropy at least equal to 1791 kA/m.

25. (currently amended) ~~Motors~~ Motor comprising ~~magnets~~ a permanent magnet according to ~~any one of claims~~ claim 21 to 24.

AFTER CALCULATION OF THE FILING FEE AND GRANTING A FILING
DATE, PLEASE CANCEL CLAIM 1 WITHOUT PREJUDICE OR DISCLAIMER OF
THE SUBJECT MATTER THEREOF.

Claims 1-20 (canceled).

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